

I CLAIM:

1. A hands-free device adapted for use with a cellular telephone in a car to permit hands-free operation of the cellular telephone, said hands-free device comprising:

a main terminal including:

a first casing;

a power supplying unit provided on said first casing and adapted to be connected electrically to a power source of the car;

a voltage regulating circuit disposed in said first casing and connected electrically to said power supplying unit so as to generate a stable voltage signal therefrom;

a first connector provided on said first casing and connected electrically to said voltage regulating circuit so as to receive said voltage signal therefrom;

an audio output amplifier circuit disposed in said first casing and connected electrically to said voltage regulating circuit so as to receive said voltage signal therefrom, said audio output amplifier circuit being further connected electrically to said first connector for amplifying an audio signal received by said first connector; and

a sound output unit connected electrically to said audio output amplifier circuit for reproducing said audio signal from said audio output amplifier

circuit;

a secondary terminal including:

a second casing;

5 a second connector provided on said second casing and connected removably to said first connector;

a third connector provided on said second casing and adapted to connect removably with the cellular telephone;

10 a hands-free control circuit disposed in said second casing and connected electrically to said third connector, said hands-free control circuit being adapted to control hands-free operation of the cellular telephone;

15 a voltage output control circuit disposed in said second casing and connected electrically to said second and third connectors, said voltage output control circuit adjusting said voltage signal received by said first connector from said voltage regulating circuit and being adapted to provide said voltage
20 signal to the cellular telephone via said third connector; and

a gain control circuit disposed in said second casing and connected electrically to said second and third connectors, said gain control circuit being
25 adapted to adjust level of said audio signal received from the cellular telephone via said third connector prior to supplying said audio signal to said audio

output amplifier circuit via said first and second connectors; and

5 a microphone provided on one of said main terminal and said secondary terminal for picking up voice signals to be supplied to the cellular telephone by said secondary terminal.

2. The hands-free device as claimed in Claim 1, wherein said microphone is provided on said main terminal, said main terminal further including a microphone amplifier
10 circuit disposed in said first casing and connected electrically to said voltage regulating circuit so as to receive said voltage signal therefrom, said microphone amplifier circuit being further connected electrically to said first connector and to said
15 microphone so as to amplify said voice signals picked up by said microphone and being adapted to provide said voice signals to the cellular telephone via said first, second and third connectors.

3. The hands-free device as claimed in Claim 2, wherein
20 said microphone is an external microphone.

4. The hands-free device as claimed in Claim 1, wherein said power supplying unit is formed as a plug which is adapted to be inserted into a lighter socket of the car.

25 5. The hands-free device as claimed in Claim 4, wherein said power supplying unit extends directly from said first casing.

6. The hands-free device as claimed in Claim 4, wherein said main terminal further includes a cable which couples electrically said power supplying unit to said voltage regulating circuit in said first casing.
- 5 7. The hands-free device as claimed in Claim 1, wherein said first connector includes a connecting plug on one end of an elastic cord, said second connector including a connecting socket formed on said second casing for engaging removably said connecting plug of said first
- 10 connector.
8. The hands-free device as claimed in Claim 1, wherein said third connector includes a connecting plug on one end of a flexible cord that extends from said second casing.
- 15 9. The hands-free device as claimed in Claim 1, wherein said sound output unit includes a loudspeaker built into said first casing.
10. The hands-free device as claimed in Claim 1, wherein said sound output unit is disposed externally
- 20 of said first casing.
11. The hands-free device as claimed in Claim 1, wherein said microphone is built into said second casing of said secondary terminal and is connected electrically to said second connector so as to be
- 25 adapted to provide said voice signals picked up thereby to the cellular telephone via said second and third connectors.